



USER MANUAL

AIS-3R

001-1034

AIS Dual Channel Parallel Receiver
with NMEA 0183 in/out and USB

1 CONTENTS

- The AIS-3R Unit
- Power/Data Cable
- USB Cable
- BNC Adaptor
- CD
- This Manual

2 INSTALLATION

The AIS-3R unit is not waterproof and should be installed in a dry location. The unit can be secured by the 4 mounting holes in the end flanges. It should ideally be installed in a location suitable for connection to power and a VHF antenna, observing a compass safe distance of 0.5m.

2.1 Power Connection

Operation is from either the boats DC supply of 12-24 Volts, or by the USB cable from a computer. Connect the power data cable to:

RED	Positive +
BLACK	Negative -

A switched fused supply is recommended with a fuse value of 1 Amp.

2.2 NMEA Connections

The AIS-3R has one NMEA 0183 Output at 38,400 baud, and one NMEA Input at 4800 baud.

The NMEA output is set to 38,400 baud and can be connected to a suitable Chart Plotter that will accept AIS data in.

YELLOW	NMEA Output Positive +
GREEN	NMEA Output Negative -

If the equipment that you are connecting to has a pair of NMEA cables, normally marked NMEA Input Positive and Negative these should go to the respective NMEA output on the AIS-3R unit.

If the equipment has only one (Positive) +NMEA Input wire, this should go to the +NMEA Output and the wire from the -NMEA output should then be taken to the common ground/negative of the other equipment.

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Any 4800 baud NMEA data such as that from a GPS, Chart Plotter or Instruments can be connected to the NMEA input 4800 terminals, observing the correct polarity. This data will be multiplexed with the AIS data and sent out at 38,400 baud.

WHITE	NMEA Input Positive +
BLUE	NMEA Input Negative -

The unit can only be connected to one item of equipment, so choose the unit that has the most information that you require, normally a GPS.

The supplied Power/Data plug is pre-wired with the supplied cable. This cable can be altered if you wish to use your own cable. Pressing the individual orange button on the plug will release a cable core. To insert a new cable core hold the orange button down and insert the stripped back cable core into the hole.

3 OPERATION

On applying power the green ON LED will light and the two red channel A and B LEDs will come on for approximately 10 seconds. If the unit is within VHF range of other AIS equipped vessels, the red channel A and B LEDs will flash randomly.

If the unit is connected solely by the USB cable to a computer, this will power the unit and also transfer data. Install the USB Drivers on the supplied CD and select the com port on your PC which this device is allocated to.

Connecting external 12/24V DC to the unit will automatically switch the power source from the USB to external power; the USB will still output data.

The NMEA output at 38,400 is available at all times whether the unit is on USB power or external power.

NMEA data at 4800 on the input will be multiplexed by the unit and output to the NMEA output port and the USB data cable.

4 TROUBLE SHOOTING

No green ON LED is displayed

- Check the power supply and that the unit is connected correctly to 12 or 24V DC supply, or by USB

No red Channel A or B LED flashing

- Check the antenna connection
- Check that you are in range of vessels transmitting AIS

5 SPECIFICATION

Connections	
Core Colour	Function
RED	Positive (+) Power 12/24V DC
BLACK	Negative (-) Power 12/24V DC
YELLOW	+NMEA Output
GREEN	-NMEA Output
BLUE	-NMEA Input
WHITE	+NMEA Input

Dimensions overall: 120 x 86 x 37mm
 Power: 9-30V DC or USB
 Current: 100mA @ 12V DC
 Input: NMEA 0183 at 4800
 Output: NMEA 0183 at 38,400 or USB
 Power/Data: 6-way Plug and Socket
 Antenna: PL259 Socket

6 LIMITED WARRANTY

Comar Systems Ltd warrants this product to be free from defects in materials and manufacture for one year from the date of purchase. Comar Systems Ltd will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts and labour. The customer is, however, responsible for any transportation costs incurred in returning the unit to Comar Systems Ltd.

This warranty does not cover failures due to abuse, misuse, accident or unauthorised alteration or repairs.

The above does not effect the statutory rights of the consumer.

Note: Every effort has been made to ensure that all information contained in this manual is accurate at the time of going to press. We therefore cannot take any responsibility for the content of this manual and advise that you take normal steps to ensure that the information is at its most current when you are reading this manual.

7 PRODUCT SUPPORT

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